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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,565	12/22/2003	Wai-Hoi Weng	UTSC:757US	5048
32425	7590	10/18/2005	EXAMINER	
FULBRIGHT & JAWORSKI L.L.P. 600 CONGRESS AVE. SUITE 2400 AUSTIN, TX 78701			POLYZOS, FAYE S	
			ART UNIT	PAPER NUMBER
			2884	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/743,565

Applicant(s)

WONG ET AL.

Examiner

Faye Polyzos

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-48 is/are allowed.
- 6) ☒ Claim(s) 49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/26/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 49 is rejected under 35 U.S.C. 102(b) as being anticipated by *Stark et al* (US 6,342,698 B1).

Regarding claim 49, Stark discloses an apparatus, comprising: means for equalizing outputs of a plurality of lights (LED) (610); and means for equalizing outputs of a plurality of light detectors (photomultiplier tubes) (605) using the outputs of the plurality of lights (See Generally Fig. 13 and col. 9, lines 15-28 and 55-67).

Allowable Subject Matter

3. Claims 1-48 are allowed.

4. The following is an examiner's statement of reasons for allowance:

Regarding independent claim 1, the prior art does not disclose or fairly suggest a method for tuning scintillation detectors, comprising: equalizing an output of a first light with an output of a neighboring, second light in order to equalize outputs of a plurality of light detectors using the equalized output of the first light.

5. The examiner notes that while it is known in the art of a method to tune a scintillation detector comprising: all photomultiplier tubes to be calibrated efficiently and accurately wherein all light emitting diodes are pulsed simultaneously and the outputs of

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the photomultiplier tubes are then measured or read. The sum of all the photomultiplier tube outputs is then summed and the sum of all the photomultiplier tube outputs is then compared with an expected value, such as the sum of previously measured outputs of the photomultiplier tubes (see for example *Stark et al -- US 6,342,698 B1--* Fig. 13 and col. 9, lines 15-28 and 55-67), the prior art does not suggest equalizing outputs of a plurality of light detectors using the equalizing output of the first light.

Regarding independent claim 26, the prior art does not disclose or fairly suggest a method for tuning light detectors, comprising: equalizing an output of a second light with the output of the first light and equalizing outputs of a second plurality of light detectors using the equalized output of a second light.

The examiner notes that while it is known in the art of a method to tune a light detector comprising: all photomultiplier tubes to be calibrated efficiently and accurately wherein all light emitting diodes are pulsed simultaneously and the outputs of the photomultiplier tubes are then measured or read. The sum of all the photomultiplier tube outputs is then summed and the sum of all the photomultiplier tube outputs is then compared with an expected value, such as the sum of previously measured outputs of the photomultiplier tubes (see for example *Stark et al -- US 6,342,698 B1--* Fig. 13 and col. 9, lines 15-28 and 55-67), the prior art does not suggest equalizing outputs of a first plurality of light detectors using the equalizing output of the first light and equalizing outputs of a second plurality of light detectors using the equalized output of the second light.

Regarding independent claim 45, the prior art does not disclose or fairly suggest an apparatus comprising: a data acquisition computer coupled to the pulser and configured to control the pulser to adjust a pulse width or pulse height of the second light so that its light output is equalized with a light output of the first light.

The examiner notes that while it is known in the art of an apparatus to tune a scintillation detector comprising a pulser to pulse all LEDs simultaneously wherein all photomultiplier tube (PMT) outputs generated from each individual PMT is read and the sum of the outputs of the PMTs is compared with a value that is expected to be if all LEDs and PMTs are functioning properly (see for example *Stark et al -- US 6,342,698 B1*-- Fig. 13 and col. 10, lines 32-65), the prior art does not suggest adjusting a pulse width or pulse height of the second light so that its output is equalized with a light output of the first light.

The remaining claims 2-25, 27-44 and 46-48 are allowable based on their dependency.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Polyzos whose telephone number is 571-272-2447. The examiner can normally be reached on Monday thru Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FP

OTILIA GABOR
PRIMARY EXAMINER

